

NCDOT Rail Division The Rail Report







Dr. Chris Frey demonstrates the Portable Emissions Treatment System.

A Technical Session for the AWMA conference on the subject of energy and environmental challenges facing passenger and freight railroads was hosted by the NCDOT Rail Division on June 22nd. Lynn Harris, of McDowell Engineering & Associates, led attendees on a tour of the

operations and equipment at Capital Yard, and provided an overview of NCDOT's pioneering efforts to reduce locomotive emissions. Harris discussed NCDOT's past efforts to rebuild non-regulated locomotive engines to more current EPA levels, and NCDOT's work with the NC State Environmental Engineering Department, led by Dr. Chris Frey, to evaluate biodiesel fuel use in locomotives. Harris, along with Dave Cook and Ian Steward of Rail Propulsion Systems, also discussed ongoing work to install a first-of-its-kind exhaust after-treatment system onto a locomotive to further reduce emissions, and future plans for diesel/compressed natural gas dual fuel engines to significantly reduce both emissions and fuel costs. Dr. Frey and his students were on hand to demonstrate their joint work with the Rail Division regarding

measurement of the primary EPA-regulated diesel engine pollutantscarbon monoxide (CO), hydrocarbons (HC), nitrogen oxides (NOx)



Mr. Ian Stewart of Rail Propulsion Systems discusses NCDOT's exhaust aftertreatment system.

and particulate matter (PM) using their Portable Emissions Measurement System (PEMS) in the same setup that was used for testing NCDOT's locomotive engines. These efforts will help us to take advantage of energy resources from our state.



Rail Division personnel and AWMA guests pose for a closing group shot.























NCDOT, MPOs and RPOs Prepare for STI P4.0

During June and July the Rail Planning Unit met with Municipal and Rural Planning Organizations (MPOs and RPOs) and NCDOT Division staff across the state seeking input on rail projects to be included in this year's Strategic Transportation Investments (STI) prioritization, known as P4.0. This builds off of Governor McCrory's 25-year Vision and the State Rail Plan. MPOs, RPOs and NCDOT Divisions are key partners for submitting projects into the new STI process. After submittal, projects such as grade separations and station improvements will be scored in a data driven process. Project scoring will be used to generate the Draft 2018-2027 State Transportation Improvement Program (STIP). The STIP is a 10-year plan that identifies right-of-way and construction funding and scheduling for transportation projects across all modes. The Rail Division has met with twelve planning organizations to collaborate on P4.0.

BeRailSafe Staff reaches out to School Resource Officers at Annual Conference

BeRailSafe staff participated in a conference for North Carolina School Resource Offices on July 14th. The conference was designed for officers to come together to trade ideas on how to reach elementary, middle and high school to reach to students on a variety of messages, including rail safety. Staff member, Sondra Artis, distributed materials to the officers and presented a display designed to help the officers sign-up for safety training as first responders at train accidents and other such incidents.

First Responder Training Classes in Full Swing Across North Carolina

July has been a busy month for Rail Division's BeRailSafe staff. Seventeen first responder classes were held to help fire, rescue, 911 centers and police departments to safely respond to a rail incident in their community. Class topics include personal safety hazards, evacuation procedures, incident command rail communication and investigation as well as reporting best practices.

NCDOT's BeRailSafe reached 370 of North Carolina's firefighters, police officers, deputies and 911 operators during the month of July.





Wilmington Multimodal: NCDOT Preserves and Recycles

In downtown Wilmington at 520 N. 3rd Street, property owned by NCDOT is being preserved for a future multimodal station that will serve both bus and rail. Located in an area that is undergoing revitalization of old and construction of new buildings, the Rail Division decided, in the interest of safety and to support economic growth in the area, to remove the deserted and deteriorating buildings from the property. Rail staff worked with Division 3 Right of Way staff to secure a contractor who would not just clear, but also recycle as much debris possible to keep it out of the landfills.



Of the five buildings removed, the biggest success story was that of a metal building that is now getting its second life as a farm storage building in Eastern North Carolina. The concrete and metal fencing was recycled, and when the job was finished, less than a ton of materials was sent to a landfill.



CURRENT TRAVEL DEALS

1 Take your child on a summer adventure!

Up to 2 kids (ages 2-12) ride for \$5 with a regular full fare adult on Tuesdays, Wednesdays and Thursdays within North Carolina.

Valid for travel now through August 27. Use fare code V615.



(2)

Travel Mid-Week & Save 10%

Get 10% off the price of your ticket automatically if you travel on Tuesdays, Wednesdays or Thursdays. Tickets must be reserved three days in advance to get the discount. No promo code is required. Purchase tickets at ncbytrain.org.

Rail Division Retirements





July 31, 2015 after 12 years of service to the NCDOT Rail Division. Shirley had a unique ability to consistently bridge the gap between strategic vision and day-to-day implementation of projects. She

progressed some very significant initiatives that had a direct and positive impact on many rail passengers and freight customers, and facilitated projects that were beneficial to citizens and the North Carolina economy. Her contributions will stretch far beyond her departure and she will be greatly missed. We wish her the best in retirement.

Larry Capps, Signal & Train Control Inspector, retired on July 31, 2015 after 16 years of service. Larry began his career with the Rail Division on April 5, 1999, bringing with him a

plethora of railroad knowledge and a unique perspective about work, life and responsibility. Larry was instrumental in building the Signal & Train Control discipline within our Rail Division's Safety Oversight Program. Prior to joining NCDOT, he worked 29 years in the signal department of CSX Transportation. His extensive background and experience will be greatly missed, but we wish him much happiness in retirement.



Official Game Ball presented to NCDOT

The official game ball was presented to Adam Worley, 10-year-old son of Rail Director Paul Worley, at a recent Durham Bulls game during North Carolina Amtrak's sponsorship night. The Rail Division has a season-long partnership with the Bulls – and minor league baseball teams across the state to advertise our passenger service at the games. This include digital ads, information booths and activities such as the Burlington Royals Road Trip Recap and the Charlotte Knights t-shirt cannon. Other NC baseball teams that we have advertising partnerships with include Carolina Mudcats, Greensboro Grasshoppers, Kannapolis Intimidators, Thomasville Hi-Toms and Wilson Tobs. The Hi-Toms and Tobs, two coastal plain league teams, travel by train to their games.

NC Corrections Enterprises-Print Plant wins PICA Award for NCDOT Rail Job



The North
Carolina
Correction
Enterprises Print
Plant received the
PICA - Special
Judges Award
in the Misc./
Specialty Novelty
category for the

production of the North Carolina's Amtrak and BeRailSafe Train Bank at the Printing Industries of the Carolinas annual competition.

The banks are used for marketing passenger train service and to promote safety. They are distributed at the NC State Fair, sporting events, festivals and community events.

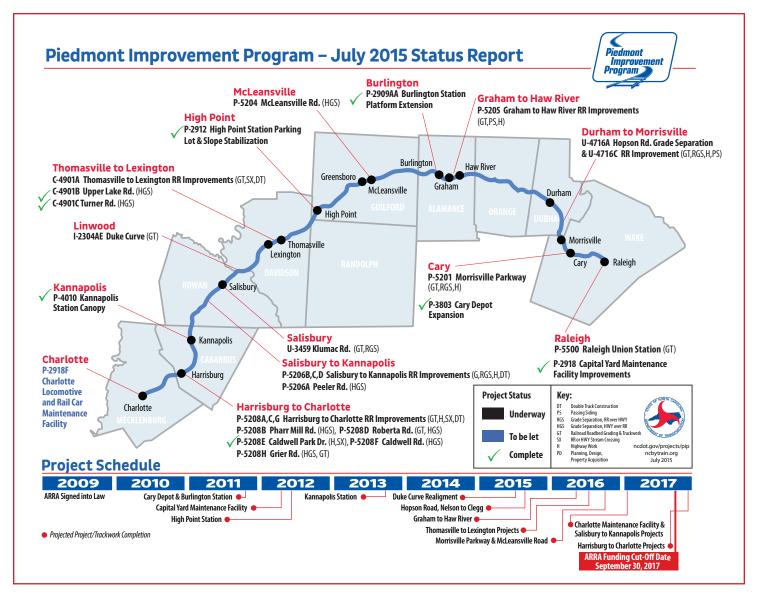
Ridership & Revenue on NC's Amtrak Service - May 2015 vs. 2014

inai eSe	RIDERSHIP			REVENUE		
TTT \$75	2015	2014	% +/-	2015	2014	% +/-
Piedmont	12,282	14,510	-15%	\$246,124	\$283,547	-13%
Carolinian	24,196	27,757	-13%	\$1,500,889	\$1,726,995	-13%

1,029



Hours Volunteered by N.C. Train Hosts in June, supporting North Carolina's Amtrak onboard trains and at events.



ARRA Funds Spent to Date (effective 6/30/2015)

Component	Expenditure
PD&A/ROW	\$46,820,787
Equipment Procurement & Rebuild	\$26,821,378
Stations & Facilities	\$13,472,110
Track & Structures	\$172,149,196
CRISP	\$2,180,376
Program Totals	\$261,443,847 of \$520M awarded FRA Grant Funds

Six new contracts totaling \$164,439 were awarded in June.

Congestion and PIP Mitigation Milestones

Enfield - Concrete tie crossovers have been installed at the new Enfield control point. Final signal and track work is progressing and the universal crossover control point is anticipated to be

put into operation in August. Completion of this work will allow trains to access both tracks in both directions, improving the efficiency and use of the existing double track segment.



Charlotte - Construction on the first concrete tie No. 24 crossovers has begun at CP Junker within the Haydock to Junker

double track project. The new switches feature tangential geometry, which significantly improves ride quality and permits higher crossover speeds than standard turnouts.



Piedmont Improvement Program Project Photos – June, July 2015



P-5201 Morrisville Parkway, bridge construction



U-4716 Nelson to Clegg Passing Siding, track construction



P-5205 Graham to Haw River Passing Siding, grading



P-5204 McLeansville Road Grade Separation bridge foundation work



C-4901 Bowers to Lake, track surfacing



U-3459 Klumac Road, bridge construction

Piedmont Improvement Program Project Photos – June, July 2015



P-5206 Reid to North Kannapolis, Kimball Road grade separation



P-5206 Peeler Road, bridge construction



P-5208 Haydock to Junker, Caldwell Road grade separation



P-5208 Haydock to Junker, Rocky River bridge construction



P-5500C Tryon Siding completion of crashwall and bridge work



P-5500C Tryon Siding roadbed grading